

SAGAR SAHU

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EDUCATION

Shri Shankaracharya Institute of Professional Management & Technology
Bachelor of Technology in Computer Science & Engineering; CGPA: 7.3/10.0

Raipur, CG
2023 – 2027

EXPERIENCE

AI/ML Vocational Trainee IIT Naya Raipur	Jun 2025 – Aug 2025
	Naya Raipur, India
<ul style="list-style-type: none">Engineered a hypertension screening system [Source Code] achieving 87.88% accuracy on 25,201 PPG signals by implementing advanced APG feature extraction and XGBoost classifiers.Attained 93.84% specificity for clinical viability by utilizing GroupShuffleSplit for subject-independent validation, successfully preventing data leakage.Boosted model performance by 31% (67% to 87.88%) over baseline by optimizing frequency-domain features (LF/HF ratio) and addressing class imbalance with SMOTE.	
AI-ML Virtual Intern Google for Developers (MoE & AICTE Partnership)	Oct 2025 – Dec 2025
	Remote
<ul style="list-style-type: none">Achieved Grade O (Outstanding: 90-100%) in a competitive 10-week AI-ML internship sponsored by Ministry of Education and supported by Google for Developers through the India Edu Program.Mastered deep learning fundamentals using TensorFlow across 6 modules: neural network programming, object detection with bounding box regression, and advanced CNN architectures for image classification.Gained expertise in visual search engine development, learning similarity scoring algorithms and techniques for connecting image databases to ML models for product image retrieval and pattern recognition.	

PROJECTS

Mechanic Mitra: Enterprise Multi-Agent System Gemini 2.5, Agentic Workflows Source Code	Nov 2025
<ul style="list-style-type: none">Architected a Multi-Agent Orchestration system with 4 autonomous agents (Visual, Audio, Pricing, Chief) engineered to streamline vehicle diagnostics from typical 45-minute manual inspections to 3-minute automated assessments.Engineered a persistent DiagnosisMemory system that improves classification accuracy over time by identifying patterns in historical fault data.Built production-grade resilience with exponential backoff and error handling to manage API rate limits (15 RPM) for the Gemini 2.5 model.	
PDF Summarizer Python, Gemini Flash Lite, Streamlit Website Source Code	Oct 2025
<ul style="list-style-type: none">Reduced document analysis time by 85% for end-users by engineering a summarization engine using Gemini 2.5 Flash Lite.Architected an intelligent caching layer to maximize free-tier API quotas, enabling sustained operation within 1,500 requests per day capacity at zero cost.Ensured 99.9% uptime for file uploads up to 5MB by managing session states securely on Streamlit Cloud.	

SKILLS

Generative AI: Vertex AI, Gemini 2.5, Prompt Engineering, RAG Pipelines, Multi-modal Agents
Machine Learning: XGBoost, Scikit-learn, Pandas, NumPy, Gradient Descent, Signal Processing, Bio-medical Analysis
Cloud Infrastructure: Oracle OCI (Certified Professional), Google Cloud Platform (15 Verified Skill Badges)
Development: Python, SQL, Git, Streamlit, REST APIs, JSON Data Handling

CERTIFICATIONS

Oracle University: OCI 2025 Certified Generative AI Professional (**Oct 2025**) | Data Science Professional (**Oct 2025**)
Google Cloud: Generative AI Fundamentals (Udacity) | 15 Google Cloud Skill Badges (Infrastructure & AI)
Simplilearn: Machine Learning using Python (**Aug 2025**) | Python for Beginners (**Sept 2025**)
Industry: Data Analysis Using Pandas (Vodafone/_VOIS) | IP Strategy (L2Pro India/Qualcomm)